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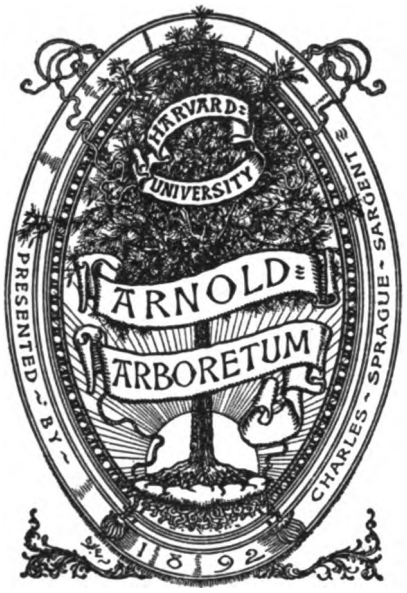

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SOME DOUBTS

RELATIVE

TO THE EFFICACY OF

MR. FORSYTH'S PLAISTER

IN FILLING UP THE HOLES IN TREES, &c.

ASCRIBED TO IT

BY DR. ANDERSON AND MR. FORSYTH.

IN A LETTER TO DR. ANDERSON

FROM

THOMAS ANDREW KNIGHT, ESQ.

LONDON:

PRINTED FOR J. WHITE, HORACE'S HEAD, FLEET-STREET;
BY WILKS AND TAYLOR, CHANCERY-LANE.

1802.

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June 1912
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SOME DOUBTS,

&c.

SIR,

IN one of the laſt numbers (37th) of your Recreations in Agriculture, you have brought forward an accuſation againſt me of miſrepreſentation relative to Mr. Forſyth's experiments at Kenſington. Your accuſation has, however, been ſo weakly ſupported, that I certainly ſhould not think it worth the attention I now give it, did I not believe that you are actuated by ſome motive of private intereſt, with which the public are not acquainted. Is Dr. Anderſon quite ſure that he is not the concealed writer, either wholly or in part, of his friend Mr. Forſyth's book, and the intended ſharer of his profits? And has not Dr. Anderſon taken out a patent for a new kind of forcing-houſe, whoſe excellence his diſintereſted friend Mr. Forſyth ſtands forward to atteſt? Suſpecting this combination, I have thought that a

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ſhort account of my viſit to Kenſington, the wonders I heard and ſaw there, and the obſervations I made, may not be wholly unſerviceable to the public, nor ill calculated to put Mr. Forſyth's plaiſter, and Dr. Anderſon's unbounded panegyric upon it, in a proper point of view.

At the deſire of Sir John Sinclair, then Preſident of the Board of Agriculture, I waited on Mr. Forſyth, at Kenſington, to ſee the effects of a plaiſter, for the invention and application of which he had received a parliamentary reward. At Kenſington I did not immediately find Mr. Forſyth; and I took that opportunity to walk over his garden, and to examine, at leiſure, the ſubjects of his experiments. Some pear-trees were pointed out to me, by one of his workmen, as trees which had been reſtored to health and vigour by means of the compoſition, or plaiſter. I examined theſe trees very cloſely: their branches appeared to me to have been amputated five years before, and had been re-produced, juſt as, I am confident, they would have been had the plaiſter never been applied, and as they always are re-produced by other trees. The rough external bark had been taken off; and from that, I believe, all trees receive benefit: but that diſcovery does not belong to Mr. Forſyth. On Mr. Forſyth's arrival, he pointed out to me what he conceived to be a great increaſe of health and vigour in thoſe trees which had been plaiſtered; and he aſked me how long a period I ſuppoſed to have elapſed ſince the branches had been amputated. I affected total ignorance; and Mr. Forſyth told me

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me the young branches were but three years old, and that the trees, previouſly to their having been plaiſtered, were cankered and unhealthy. Conceiving myſelf capable, from long obſervation, to diſtinguiſh a ſhoot of five from one of three years old; ſeeing no remains of the canker on thoſe trees; and having never ſeen the variety of the pear (the St. Germain) at which we were looking, attacked by the canker, when trained to a wall; I did not give Mr. Forſyth quite the degree of credit I wiſhed to do, nor expreſs, in quite ſo ſtrong terms as he appeared to expect, my aſtoniſhment at his diſcovery. On that account probably he did not call my attention to the other pear-trees, nor ſhow me the many wonders which you aſſert I muſt have ſeen, and which perhaps Mr. Forſyth might have ſhown me, had he not known me as an experimentaliſt on fruit-trees, and ſuſpected that I knew more than I affected to know.

The golden pippin-trees I myſelf found out: and as Mr. Forſyth told me the effect of his plaiſter was to produce health and vigour; and as theſe certainly had not been produced on thoſe trees, I thought myſelf juſtified in ſaying that it did not ſucceed. You aſſert, it has ſucceeded; and if that aſſertion be perfectly correct, it ſurely does not prove me guilty of miſrepreſentation; for I could not then ſee what has ſince happened. But you muſt allow me ſtill to doubt whether the old branches I ſaw have been either healed or recovered. I have never ſince ſeen thoſe trees, nor heard, except from your account, what ſtate they are in;

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yet I think that I can tell you the means by which an appearance of health and vigour has been given to thoſe trees.

I ſuſpect that Mr. Forſyth has (according to the rules of Dr. Laſt's practice) cut off the old branches, when he could not cure them; and that young ſhoots, which will retain their health and vigour for three or four years, have been produced, and are now ready to be ſhown, to promote the ſale of Mr. Forſyth's book. But you ſay the fruit has been fine beyond precedent. In ſuch ſeaſons as the two laſt ſummers have been, fruits are always fine, and the canker leſs deſtructive. This has been the caſe in Herefordſhire; and there I really believe the fruit was as much improved by Mr. Forſyth's plaiſter as it was in Kenſington Garden. You aſſert that my hypotheſis, that varieties of fruit when propagated by grafting, or by cuttings or layers, decay in ſome meaſure with the original tree, which firſt formed each variety, hangs on bare aſſumption only, without an attempt at evidence of any kind to ſupport it. Is this true? But I leave the experiments related in my publication to meet your aſſertion. You are alſo pleaſed to ſay that you are not aware that you "carry the inference farther than the text fully authorizes," when you ſay, according to my hypotheſis "it muſt be decidedly admitted that all trees on this globe are in a perpetual ſtate of deterioration," and "that of courſe neither wood nor fruit of any kind can be as good now as it was in former ages." Is this the meaning of my words, when I ſay that we are probably indebted to the induſtry of the planters of

of the beginning of the ſeventeenth, and end of the preceding century, for all our beſt apples; and that new varieties, as good as the beſt of the old ones, in their better days, may readily be obtained? I could point out other miſrepreſentations as groſs as theſe: but they are beneath my notice; and I ſhall proceed to examine the foundation of Mr. Forſyth's and your hypotheſis, and the accuracy of your ſtatements.

You ſeem much offended with my declaration, that nothing can be more unphiloſophical than to ſuppoſe that a piece of an old dying tree can ever form a vigorous and healthy young one.—You will, I ſuppoſe, admit, that all organized beings, whether animal or vegetable, were formed for limited periods of duration; and that each individual, by the general law of nature, (I ſpeak of nature as it was before the invention of Mr. Forſyth's plaiſter) was intended to yield its place to a ſucceſſor. A tree itſelf you allow to be ſubject to theſe laws; but its branches, or portions of the tree itſelf, you contend, are immortal, or at leaſt capable of being rendered ſo. Has Nature been obſerved by Dr. Anderſon to be ſo extremely laviſh of the gift of immortality, as to beſtow it on the parts of a tree, the whole of which, within no very extenſive period of time, it has made ſubject to death? or does Dr. Anderſon, as a philoſopher, think that man, with the aid of a little lime, cow-dung, and wood-aſhes, is capable of rendering that immortal, which the great God of nature evidently intended to die? If ſuch be Dr. Anderſon's opinions,

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opinions, I cannot call them philoſophical, though they might have been entertained by men who called themſelves, or whom their friends called, philoſophers. Should, however, the public think ſuch opinions philoſophical, and believe that an old dying tree can be reſtored to youth and vigour, merely by being plaiſtered with lime, cow-dung, and aſhes; and that a piece of ſuch tree may, by ſuch means, be made immortal, I think it would be a good ſpeculation for ſome enterpriſing genius, in imitation of the quack-doctors of the ſixteenth century, to bring forward a noſtrum to reſtore and perpetuate youth in the human ſubject. Should ſuch a projector join Mr. Forſyth, and the one undertake the animal, and the other the vegetable world, under Dr. Anderſon's patronage, I will venture to predict that the ſucceſs of each, in the cures they perform, will be equal.

To prove that there is nothing progreſſive in the character of a variety of any kind of fruit, in any way ſimilar to the progreſſive changes in animal life, you aſſert "that Mr. Forſyth knows that every tree has natural habits peculiar to itſelf, and wood, and ſhoots, and leaves, and fruit, which identify it, that under the ſame circumſtances have remained the ſame ſince they were firſt known, and will continue the ſame to the end of time." Had Mr. Forſyth ever raiſed a ſingle apple- or pear-tree from ſeed, and attended to its annual changes of character, he would have ceaſed to have known all theſe things, and he would have known that the leaves, the ſhoots, the wood, and general character of a ſeedling

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ſeedling tree become annually different, and that the moſt experienced eye does not readily diſcover the reſemblance between the leaves, and ſhoots, of the ſame tree, at two, and at twelve years old. And had he attentively examined the difference of character between the growth of grafts taken from young ſeedling trees, and thoſe from grafted trees of the ſame age, but of old varieties, he ſcarcely would have ventured to authorize you to aſſert, that the character of each variety remains for ever permanently the ſame.

Diſeaſes, you alſo ſay, are natural to certain varieties of fruit, and that thoſe which now canker always did ſo. It is ſomewhat extraordinary, that the writers of the century before the laſt ſhould have told us that the redſtreak, which now cankers as much as the golden pippin, was then free from diſeaſe, and remarkable for thriving in poor ſoils. And is it not equally remarkable, that, in Herefordſhire, not one of thoſe apples which in the middle of the ſeventeenth century were famed for luxuriance of growth, and now form, perhaps, the largeſt trees in England of their ſpecies, can be propagated? Many attempts to propagate them have been made by myſelf, and others; but none which have come under my obſervation (and that has been extenſive) have in the ſmalleſt degree ſucceeded. You will perhaps diſpute the evidence of the planters of the ſeventeenth century, and ſay that agricultural writers in all ages have been as regardleſs of veracity as many of our late writers on agriculture have been; and it may, in moſt inſtances, be dif-

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ficult to prove the contrary. But, in this inſtance, it happens to be in my power. The wounds occaſioned by the canker may be covered, but never can be healed; and thence, by cleaving the trunks and large branches of old trees of the redſtreak, golden pippin, and other old fruits, I have been able to aſcertain, that thoſe fruits did not canker, a century and a half ago, on ſoils where the canker at preſent almoſt totally deſtroys them in four or five years. I however do not mean to aſſert, that there ever was a time when the apple-tree did not canker on unfavourable ſoils, or that highly cultivated varieties were not more generally ſubject to this diſeaſe than others, where the ſoil did not ſuit them. But I aſſert from my own experience and obſervation, within the laſt twenty years, that this diſeaſe becomes progreſſively more fatal to each variety as the age of that variety, beyond a certain period, increaſes; that all the varieties of the apple, which I have found in the catalogues of the middle of the ſeventeenth century, are unproductive of fruit, and in a ſtate of debility and decay. You believe the nonpareil and codlin, you ſay, to be as old, or nearly ſo, as the golden pippin. That it ſuits your convenience to believe ſo, is certain; and as you appear to me to be, to a moſt extraordinary extent, uninformed on the ſubject on which you have undertaken to inſtruct the public, I will not diſpute but that you do believe ſo: but I have not been able to find the nonpareil in any catalogue that is a century old; and the firſt mention I recollect being made of the codlin

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is in the year 1678. The growth and ſtature of the codlin have not lately much attracted the notice of any perſon, I conceive, but yourſelf, and I ſuſpect that you muſt mean ſome other variety. Your Wiltſhire ruſſeting you appear to think muſt be a new fruit, becauſe no one knows it to be an old one, in my ſenſe of the word; and that it muſt always have cankered, becauſe "no man now living ever ſaw the tree otherwiſe." This is an admirable way of reaſoning, and every way worthy of the defender of Mr. Forſyth's hypotheſis. Your Wiltſhire ruſſeting I believe you will find in ſeveral catalogues of the century before the laſt. Mincham's crab I do not know; but it is not, I am ſatisfied, in any old catalogue of fruits; and from the deſcription you give of its growth, I ſuſpect that the original tree, like that of the Ribſtone pippin, another apple which grows with luxuriance in almoſt every ſoil, is ſtill alive.

I am indebted to you for a piece of information relative to the cherry tribe, which is perfectly new to me: you ſay they "have a natural and invariable tendency to gum and canker." The cherry is not uncommon in the woods of Herefordſhire, and I have ſome in which it greatly abounds; and there it is perfectly, but, I muſt now ſuppoſe, unnaturally, free from diſeaſe, though the trees have never been covered with Mr. Forſyth's compoſition. I will not however aſſert, that their forefathers might not have been dreſſed with it, and that thence they derived the preternatural health; for

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a waſh compoſed of lime, cow-dung, and wood-aſhes, was employed in that neighbourhood almoſt half a century before Mr. Forſyth received a parliamentary reward for the diſcovery and application of it. Its wonderful effects, however, were not then known, and thoſe I have not a ſhadow of doubt will remain confined to Kenſington Garden, and to the gardens of thoſe who are very little acquainted with the nature of vegetation. The ſeedling ſtocks of the plum every gardener can atteſt to be free from diſeaſe.

I muſt now examine, though my letter much exceeds the limits I intended when I ſat down to write, one or two of the wonders you relate of Mr. Forſyth's compoſition. You aſſert, that I could not fail to obſerve both plum- and cherry-trees in that garden, which had been in ſuch a ſtate of decay as to have been all rotted away except about an inch of bark, reſtored to the greateſt degree of health and vigour. I really did not ſee theſe; and you muſt allow me to ſay you did not ſee them; and that Mr. Forſyth never could ſucceed in ſuch an experiment, for the following obvious reaſons.—Every bud, as I amongſt others have proved by very numerous experiments, draws its whole nutriment from the wood; and therefore, before the wood could have rotted entirely away, as you aſſert it to have done, all the buds muſt have been many years dead. In inventing diſcoveries of every kind, it is prudent to keep within the limits of poſſibility. That Mr. Forſyth may have trained up a young ſhoot from the

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the bottom of an old tree that was partially hollow, and that ſuch a ſhoot may have made a good tree, is nothing wonderful; for the roots of almoſt all our grafted trees ſhow no diſpoſition to periſh with the graft or bud, which they nouriſh; and a ſhoot thus trained would certainly make, as I have often obſerved, as good a tree as any other of the ſame variety. But ſome trees do not readily emit young ſhoots of this kind; and I ſhould like much to know how many peach- or nectarine-trees died under Mr. Forſyth's proceſs of rendering them immortal.

As to the enormous crops of fruit I muſt have ſeen, as you aſſert, I really cannot ſpeak, the plaiſtered trees having almoſt wholly failed to bear any in the only ſeaſon that I was in Mr. Forſyth's garden; but I heard, which you may think was equally ſatisfactory, of the enormous quantities produced in other years. It will however probably not be difficult to bring evidence of ſome kind, that his Majeſty's table was always abundantly ſupplied with fruit, even in the year that I was at Kenſington; and as the diſtance from Kenſington Garden to Covent Garden is not greater than that to which fruit may conveniently be carried, I can readily believe it.

The moſt important of Mr. Forſyth's diſcoveries, that by which "holes in trees may be brought to ſuch a degree of ſoundneſs that no one can know the new from the old wood," remains yet to be inveſtigated; and I have ſtill to juſtify myſelf

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ſelf for having ſaid, that I did not place much confidence in topical applications to the wounds and diſeaſes of vegetables. When the fleſh of a living animal, not in a morbid ſtate, is divided, or a ſmall quantity of it taken away, a new portion of animal matter is ſupplied, the animal fibres unite, and the new matter cannot be diſtinguiſhed from the old. The wound then is ſaid to be healed: and in this ſenſe you evidently apply that word, when you ſay that no one could know the new from the old wood: for, were there any diviſion or line of ſeparation, the one muſt ever readily be diſtinguiſhed from the other. Now, Sir, I have no pecuniary intereſt to ſerve; I have, I hope and believe, a character as a man of honour and veracity to loſe; and I ſpeak from long and attentive obſervation, and ſome knowledge of the nature of vegetation, and aſſert, in the face of the public, that new and old wood, whenever cut, broken or decayed, never did unite in any one inſtance in any Engliſh tree; that a wound in the wood of ſuch a tree never was healed, though it becomes covered by the annual layers of ſucceeding years; and I further aſſert that Mr. Forſyth never filled up any tree, in which the old and new wood united with, or were not readily diſcoverable from, each other. You will perhaps tell me that the deciſion of the gentlemen deputed by the Houſe of Commons diſproves my aſſertions. I have great reſpect for thoſe gentlemen, but I would rather take their opinions on ſome other ſubjects than on the growth and

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formation of timber; and the acquirement of a parliamentary reward by Mr. Forſyth affords a much better proof that he was paid for an important diſcovery, than that he made one.

You may perhaps alſo tell me that Mr. Forſyth ſhowed me a tree growing near the wall on the ſouth-eaſt ſide of Kenſington Gardens, which he informed me had been hollow, and that he had filled it up. I acknowledge that he did; and Mr. Forſyth can, I believe, acknowledge that I paid quite as much attention to its internal organization, as he wiſhed me; and I alſo acknowledge that I could not diſtinguiſh that which he told me was new wood, from that which I am ſure was old, nor diſcover the ſlighteſt line between them: the medulla occupied its true central poſition, the annual layers of wood were concentric, and the ſilver grain (the inſertions of Grewe and the medullary proceſſes of modern botaniſts) diverged regularly from the medulla to the bark in every direction. How theſe things could have happened in a tree which had once been hollow, I am totally at a loſs to conceive; and I believe it would puzzle Dr. Anderſon, and all the philoſophers living, to diſcover. I therefore leave it for Mr. Forſyth to explain, and for the public to believe, if it pleaſe, that "holes in trees," or hollow trees, "may be brought in a few years to ſuch a ſtate of ſoundneſs, that no one can know the new from the old wood." But, for myſelf, I hope you will not be offended with me, if I retain ſome portion of that ſcepticiſm, which in reading the

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the wonders performed by modern experimental farmers, gardeners, and agricultural philoſophers, I have on many occaſions found moſt eminently uſeful.

I am, Sir, &c.

T. A. KNIGHT.

P. S. I beg leave to add, that I think my time may be better employed than in this controverſy, and that here it will totally end on my part.

FINIS.

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